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UNITED STATES DEPARTMENT OF AGRICULTURE  
AGRICULTURAL ADJUSTMENT ADMINISTRATION

## 1939 AGRICULTURAL CONSERVATION PROGRAM

Insular Region - Puerto Rico

## SPECIFICATIONS WITH RESPECT TO SOIL-BUILDING PRACTICES

The following specifications with respect to the carrying out of certain of the practices listed in the 1939 Agricultural Conservation Program Bulletin - Puerto Rico, are issued pursuant to paragraph (b) of section 2 of said bulletin. These specifications are in addition to, and do not in any way supersede, the specifications set forth in the bulletin.

Payment under the program will be made only with respect to practices carried out by such methods and with such kinds of seeds, trees, and other materials as conform to good farming practice, and in accordance with the specifications listed in the program bulletin and the specifications set forth herein.

Planting forest trees

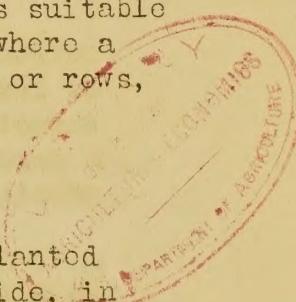
Forest trees must be planted on suitably prepared land and the varieties of trees used must be well adapted to forestation and the location of the farm. Not less than 500 trees must be planted per acre.

In the case of windbreak plantings, varieties of trees suitable for windbreaks under local conditions must be used, planted where a windbreak is needed, and spaced close enough within the row, or rows, to form an adequate windbreak.

Shade trees in established coffee groves

Shade trees in established coffee groves must be so planted and spaced within the groves and in such a number as to provide, in the future, an adequate shade for the coffee trees, according to requirements of the location and condition of the land where the trees are planted.

The practice of cultivating, protecting, improving and maintaining a good stand of shade trees requires the improving of the standing trees by necessary pruning of the standing trees, the removal of old and decaying trees, and the removal of excess trees where less shading of the coffee is advisable.

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### Planting Erythrina

The number of Erythrina planted for use as support and shade for vanilla must not be less than 500 trees per acre, but a larger number, up to 800 trees, must be planted if required to conform with good farming practices for the locality and situation of the farm.

### Planting shade trees on pasture land

For the planting of trees on pasture land, only such varieties of trees may be used whose shade when the trees are mature will not be harmful to the pasture. As long as the trees are small they must be adequately protected from destruction by grazing animals, and a space of three feet in diameter around the tree should be kept cleared from grass.

For the purpose of this practice the planting of not less than 50 trees per acre will be considered a good farming practice.

### Planting grasses in contour rows

For the planting of grasses in contour rows only such stiff-stemmed upright grasses, such as elephant grass, mocker grass, or guatemala grass, may be used, which at maturing will form a strong enough barrier to retain soil washed down by strong rains. In planting, the slips of such grasses must be spaced not more than twelve inches apart within the row. The rows of grass must run along contour lines with a grade of not more than 2 percent slope. The vertical distance between rows must not exceed 6 feet and free outlets must be provided for surplus water. This practice is not applicable to land with a slope of less than 10 percent.

### Construction and maintenance of individual terraces

A. Around coffee trees. Individual terraces constructed around coffee trees must have not less than 5 square feet of surface and must be level or as nearly level as the slope of the land permits. The construction of individual terraces and catch pits on land of less than 2 percent slope will not be regarded as conforming to good farming practice.

The practice of maintaining throughout 1939 individual terraces or catch pits constructed prior to 1939 requires the restoration and cleaning of all terraces and catch pits which have been partly destroyed or filled by soil washing.

B. In connection with the planting of any crop other than coffee. Catch pits constructed in connection with any crop other than coffee should be not less than two feet wide, two feet long and twelve inches deep, and must not be filled up with soil when the plant growing within the catch pit is being cultivated. If the size and slope of the fields so requires, properly laid out ditches not more

than 50 feet apart with adequate outlets must be constructed to carry off any excess water. This practice is not applicable to land with a slope of 15 percent or less.

To maintain throughout 1939 such catch pits constructed prior to 1939, these must be cleaned out so far as the plant growing within the pit permits and the ditches and outlets must be maintained free from any obstructions so as to permit a free flow of excess water.

#### Control of erosion by ditching

Permanent ditching, in order to conform to good farming practices and to qualify for payment, must be constructed where such ditching is needed to prevent soil washing, and in a manner that will assure permanence of the ditches. The ditches must be of sufficient depth and width and of proper slope to carry the flow of the water at a low velocity which will prevent soil washing and the formation of gullies.

Temporary field ditches must be constructed in fields where such ditching is needed to prevent soil washing. The ditches must be of sufficient number, depth, and width and of proper slope to provide adequate carrying capacity for the surface water at low velocity and to prevent washing or gullying of the soil.

These practices are not applicable to land with a slope of less than 6 percent.

When ditches on land of 6 percent or more slope are lined with sod, the bottom and sides of the ditches must be lined solidly with sod and the sides of the ditches must be sodded to such a height that the volume of water which may be expected after a heavy rainfall will not overflow the sodded surface.

Good farming practice in the case of lining ditches with concrete or stone set in mortar requires that the lining be permanent under the conditions to which it ordinarily will be subjected and that soil washing in the ditches be entirely eliminated.

#### Control of gullies

Check dams constructed in gullies must be securely constructed to prevent their being washed out, and well anchored so that no washing will occur at their intersection with the side of the gully.

In the case of establishing erosion-resistant perennial grasses in gullies, sufficient grass must be seeded or planted to obtain a solid, vigorous stand of grass to resist erosion.

#### Contour cultivation

Where the ridges formed in cultivating land along contour lines will disappear before December 31, 1939, the San Juan office shall be notified prior to that time, so that the practice can be inspected while the ridges are still in the field.

In furrowing fallow or non-crop pasture land along contour lines, the slope of the furrows must not be more than 2 percent, and the dams not less than 12 inches wide to prevent their breaking. This practice is not applicable on land with a slope of less than 10 percent.

In the practice of strip-cropping, the strips must be along contour lines and the protecting crops must occupy at least 25 percent of the total acreage strip-cropped.

#### Planting protective non-depleting cover crops

When protective non-depleting cover crops are interplanted with other crops, not less than 50 percent of the area must be occupied by the cover crops. When planted in rotation with other crops, sufficient seed must be seeded to obtain a good stand. When planted for green manuring, sufficient seed must be seeded to obtain a good stand which must be plowed under when the crop is in the proper state of maturity, which in the case of legumes is at the beginning of the blossoming period. The San Juan office must be notified prior to the time of plowing so that the practice can be inspected before or at the time plowing is done.

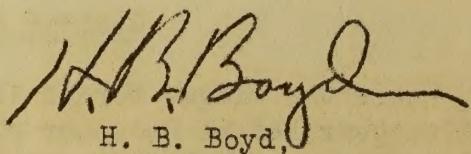
When perennial varieties of non-depleting cover crops are planted for permanent pasture or green feed, pursuant to practice 23, the land must be suitably prepared, either by plowing or clearing by hand, and sufficient sod, cuttings, or seed must be used to assure a good stand at the time of maturity. The varieties of grasses used must be well adapted to conditions of the particular area to be planted. The following varieties may be used for this purpose: malojillo, guinea grass, yaraguas, Bermuda, elefante, Guatemala, mocker, or any other variety recommended by the Puerto Rico Agricultural Extension Service.

#### Incorporating in the soil the entire residue of a pineapple crop

All the old pineapple plants on the land must be pulled out and the land must be plowed in such manner that all the plant beds are destroyed and the plants are completely uprooted and turned under to prevent any continuation of growth.

#### Eradication of serious plant infestations

In order to eradicate thoroughly infestations of the plants listed under practice 29 of the bulletin, all such plants growing on the area where this practice is carried out must be cut down close to the ground, or if necessary, completely uprooted so as to prevent any further growth. Payment will be made only when this practice is carried out on non-crop pasture land included in the farm but not included in the cropland.



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